

**Remarks/Arguments:**

**Claim Rejections Under 35 U.S.C. §112, second paragraph**

Claim 13 stands rejected under 35 U.S.C. §112, second paragraph, as indefinite because the term "effective current" is not defined. Claim 13 as amended does not recite the term "effective current." Applicants respectfully submit that this rejection is now moot and request withdrawal of this rejection of claim 13.

**Claim Rejections Under 35 U.S.C. §102**

Claims 13-25 stand rejected under 35 U.S.C. §102 as anticipated by U.S. Patent No. 6,322,166 (Furuya et al.). Applicants traverse these rejections.

Independent claim 13 recites a "[m]ethod for generating a corrected nominal current in a pulse-width-modulated current control, in particular for electronic brake control units of motor vehicles, wherein a measured current is determined at a certain predetermined time during an actuation period and a compensation is executed by way of compensation variables in response to temperature and supply voltage, which are added to the measured current so that the corrected nominal current is available for current control."

The Final Office Action states in the paragraph bridging pages 6 and 7 that "Col. 17 lines 60-65 states that the plunger position is compensated for temperature and battery voltage. Col. 18 lines 1-5 state the regenerative current caused by the position of the plunger is then measured. If the position of the plunger is compensated and the current is then measured, the measured current will also be compensated, even if only indirectly."

The November 21, 2007 Advisory Action indicates that the following comments are not positively claimed. Applicants respectfully disagree. The following comments specifically explain the teachings of Furuya et al. and how such reference fails to teach or suggest determining of a measured current at a predetermined time during an actuation period and compensating that measured current so that the corrected nominal current is available for current control, which as indicated above, is positively claimed.

Referring to Figs. 5(a) - 5(c) of Furuya et al., the regenerative current  $I_2$  does not equal the coil current  $I_1$ , and does not correspond to the claimed corrected nominal current available for current control. To the contrary, Furuya et al. simply teaches the use of the regenerative current for determining the position of the plunger 303. Furuya et al. explains at column 12, 23-32, "[t]he regenerative current  $I_2$  has different waveforms in accordance with an inductance characteristic varying with a clearance of said air gap G. Specifically, as shown in FIG. 6(b), an

inductance L varies with the magnitude of the dimension of the air gap G. And as shown in FIG. 6(a), a value of the regenerative current  $I_2$  varies with a variation in the dimension ( $\Delta I$  in the drawing). Therefore, the dimension of the air gap G, i.e. the position of the plunger 303 can be detected out of a value of the regenerative current  $I_2$  in the regenerative-current detection circuit." Furuya et al. does not teach a measured current at a predetermined time during an actuation period and compensating that measured current so that the corrected nominal current is available for current control.

Support for the regenerative current only being used for the position of the plunger is provided at Furuya et al. at column 14, lines 11-20 where it is explained that "[n]ext, at a step 93, based on a characteristic map of regenerative current as previously input, a gradient value X upon full opening and a gradient value Y upon full closing are obtained at the stored duty ratio. Specifically, the gradient value X upon full opening and the gradient value Y upon full closing for the regenerative current as shown in FIG. 10 are input as a characteristic map of regenerative current for every duty ratio, which are obtained at the step 93. Next, at a step 94, the position of the plunger is calculated by  $\{(Z-Y)/(X-Y)\} * 100$ . Specifically, the position is obtained based on what is the ratio of the actual gradient value Z to the two gradient values X, Y." The cited reference fails to disclose each limitation of the claimed invention.

It is respectfully submitted that independent claim 13 is condition for allowance. Claims 14-25 each depend from claim 13 and should each be allowed for at least the reasons set forth above.

It is respectfully submitted that each of the pending claims is in condition for allowance. Early reconsideration and allowance of each of the pending claims are respectfully requested.

If the Examiner believes an interview, either personal or telephonic, will advance the prosecution of this matter, it is respectfully requested that the Examiner get in contact with the undersigned to arrange the same.

Respectfully submitted,



Robert P. Seitter, Reg. No. 24,856  
Glenn M. Massina, Reg. No. 40,081  
Attorneys for Applicants

RPS/GMM/

Dated: December 17, 2007

Appln. No.: 10/505,387  
Amendment Dated December 17, 2007  
Reply to Office Action of August 8, 2007

PC10373US

<input checked="" type="checkbox"/> P.O. Box 980 Valley Forge, PA 19482 (610) 407-0700
<input type="checkbox"/> P.O. Box 1596 Wilmington, DE 19899 (302) 778-2500

The Director is hereby authorized to charge or credit Deposit Account No. **18-0350** for any additional fees, or any underpayment or credit for overpayment in connection herewith.